

ERRATA IN MN TR 3 "LOOSE RIPRAP PROTECTION"
September 20, 1990

1. Page 20, Figure 2-4 -- The note to "See Chart 4" should read "See Figure 2-3".
2. Page 20, Figure 2-4 -- The equation on this chart is functionally correct. Equation 2-3 is functionally correct. These were taken from two different sources where the notations were slightly different. As such, θ in Figure 2-4 is equal to ϕ in Equation 2-3. Similarly, θ in Equation 2-3 is equal to ϕ in Figure 2-4.
3. Page 29, Equation (2-6). The 5 should be a 4. In equation (2-8) the word finer should be coarser.
4. Page 39, 1st paragraph -- The opening portion should read, "In the situation where two or more conduits are laid along the same orientation, such as in Figure 3-5, one needs to figure the area and hydraulic radius (see equation 3-8) for each conduit separately. These values should be added to obtain a total for calculating the D. I. value."
5. Page 49, Equation 4-2 -- The constant should be 0.012, not 0.0012. The equation is correct on page 50 in the example and in the worksheet on page 88.
6. Pages 53, 63 and 91: The "squared" notation was left out of the area equations for both the trapezoidal and triangular channels. The correct equations are as follows:

Trapezoidal Area: $A = bd + zd^2$

Triangular Area: $A = zd^2$
7. Page 65, Item 3, near the bottom -- The statement "r= flow depth in feet" should read "r = hydraulic radius, feet"
8. Page 66, Table 6-1 -- A helpful addition to this table is the case where $z = 2.5$. $\cot^{-1} z = 21^\circ 45'$ and $\sin^2 (\cot^{-1} z)$ is 0.1373.
9. Page 66, Items 5 and 6 -- The symbol theta, θ , is missing from the narrative. In item 5 this follows the phrase "angle of repose" and in item 6 it lies between the words "Use" and "calculated". This correction was made on many copies.
10. Page 81, Table 7-3. 6 inches is given as 0.6 feet but this should be 6" = 0.5 feet.